

The importance of proximity and animal welfare for wildlife tourist satisfaction in the context of interactions with habituated dolphins

The long-term sustainability of wildlife tourism depends on integrating visitor demands with resource management, requiring an understanding of tourist motivation. Managing the conflict between access to the animals and welfare, however, may diminish the experience for tourists. This paper identifies trade-offs tourists are willing to make between access and animal welfare, associated with feeding habituated bottlenose dolphins (*Tursiops* sp.) in Monkey Mia, Western Australia. Using a choice modelling technique, we were able to determine monetary values of visitor experiences. Compared to the current guaranteed interaction with dolphins (and a daily resort entrance fee), respondents were willing to pay significantly higher hypothetical entrance fees to avoid a decrease in proximity to, or probability of, the dolphin interaction. However, negative impacts on dolphin welfare had a negative impact on visitor utility. Over 80% of visitors ($n = 244$) accepted management regulations resulting in decreased time with and proximity to dolphins, if those addressed welfare concerns and were communicated clearly. Thus, while visitors placed the greatest value on the proximity and predictability, they were willing to trade off these aspects if they improved dolphin welfare. We provide management suggestions based on these results.

Keywords: iconic species; choice modelling, sustainable tourism, animal welfare, dolphins

21 **Introduction**

22 Anthropogenic impacts alter global biodiversity, thereby impacting ecosystem
23 processes and function. Halting the loss of global biodiversity is crucial, as humanity
24 depends on the services that biodiversity and ecosystems provide (Dirzo & Raven,
25 2003; Nyaupane & Poudel, 2011; Van der Duim & Caalders, 2002). Ecotourism has
26 been advocated as a solution to protect local biodiversity. Rather than primarily
27 conserving biodiversity, ecotourism is based the sustainable use of biodiversity
28 (Tremblay, Pearson, & Gorman, 2008; Van der Duim & Caalders, 2002) and can be an
29 economically viable alternative to practices that damage the environment, whilst
30 promoting environmental awareness and public conservation support (Van der Duim &
31 Caalders, 2002).

32 Sustainability, the maintenance of ecological processes, is a core principle of
33 ecotourism, because the exploitation of the product (wildlife experience) affects the
34 persistence of the experience itself. The impact of tourism on wildlife is a major
35 concern because of the conflict between visitor motives and sustainable habitat
36 development (Hu & Wall, 2005; Tremblay et al., 2008). Therefore, tourism and wildlife
37 resource planning require a complex framework of technical capabilities, including
38 insights into ecology, wildlife science, welfare management, economics, tourism and
39 marketing (Tremblay et al., 2008).

40 Marine ecotourism comprises a range of activities based on the marine
41 environment including whale watching, scuba diving, beach walking and snorkelling
42 (Garrod & Wilson, 2003). Due to its rapid growth, cetacean-based ecotourism has
43 received a great deal of attention. For instance, whale-based tourism has increased in
44 Australia by 15% in a five year period between 1996 and 2001, generating AU\$300
45 million annually with 1.5 million people participating (Smith et al. 2006a).

In this study we focus on the iconic bottlenose dolphins (*Tursiops truncatus*), a small dolphin species common in coastal areas worldwide and likely to be exposed to tourism (Constantine, Brunton, & Dennis, 2004; Wilson, Thompson, & Hammond, 1997). Like other mammal species such as chimpanzees (*Pan troglodytes*), bottlenose dolphins can become habituated to human presence, which is reported to have happened in Monkey Mia, Shark Bay (Western Australia) since the 1960's (Constantine et al., 2004; Orams, 1997).

Monkey Mia is one of a few places in the world where a long-term relationship between a group of dolphins and humans has been established through daily feeding (Connor & Smolker, 1985; Smith et al., 2006b). Following initial interaction with a single dolphin in the 1960's a group of seven dolphins was habituated (Orams, 1997) and by the 1980's Monkey Mia had become a tourist destination based around the dolphin feeding interaction. Increasing tourist numbers resulted in welfare concerns and as a response the Australian government stationed rangers in the area to implement formal regulations governing the feeding interaction (Smith et al., 2008, Smith et al., 2006a). As the five dolphins that are currently in the feeding programme reach age of mortality, feeding events may become more sporadic and could ultimately cease in the near future.

Around 100,000 tourists visit Monkey Mia in Shark Bay annually to see the habituated dolphins that come to the beach to be fed almost daily. Unsurprisingly, a multi-million dollar business has developed worth approximately AU\$30 million per year (Smith et al., 2006a). Shark Bay as a whole is characterised by relatively few and low impact recreational activities available to visitors, with only two boats operating wildlife-viewing tours near Monkey Mia (Burgin & Hardiman, 2015) and studies

estimate that Monkey Mia alone contributes 20–42% of the local Shark Bay economy (Stoeckl et al., 2005).

The prospect of interacting with dolphins often plays a major role in destination choice (Tremblay et al., 2008). However, the habituation of wild species is a welfare concern that requires assessment and management in order to minimize the negative impact on the species (Tyler & Dangerfield, 1999). Research suggests that food provision has a negative impact on social behaviour, foraging strategies and survival of wild bottlenose dolphin populations (Orams, 1995a; Orams & Hill, 1998). A number of studies have shown a link between food provision and aggression towards conspecifics (Constantine, 2001; Smith et al., 2006a) and even humans (Bryant, 1994; Orams, 1995a). Moreover, increased disturbance associated with tourism can result in changes in feeding and resting (Steckenreuter, Harcourt, & Möller, 2011), increases in milling behaviour (Constantine et al., 2004), injury, vocalisation changes and avoidance (Orams, 1997). It is largely agreed that ecotourism should follow principles and practices associated with ecological, socio-cultural and economic sustainability (Weaver & Lawton, 2007). Therefore, welfare concerns associated with the dolphin interaction need to be minimised, whilst integrating socioeconomic constraints (Tyler & Dangerfield, 1999).

This paper reports the results of a survey investigating how aspects of the dolphin interaction influence visitors, specifically the degree to which they were prepared to trade off elements of that interaction with other aspects of their visit. Our objective was to gain insight into visitor satisfaction changes if management was altered, which is likely in the future. To do so, we conducted two choice experiments with visitors in Monkey Mia to study willingness to pay (WTP) for changed management regimes using choice modelling. We investigated WTP associated with

four levels of proximity to the dolphins and the importance educational activities in the Monkey Mia context (i.e. the education science centre). In a second set of choice models we evaluated the importance of animal welfare, the wildlife experience and possibility of other activities including terrestrial (hiking) and those not based on ecotourism (kite or wind surfing).

Methods

Study site

Shark Bay is an embayment approximately 13,000 km² in area and located on the east side of the Peron Peninsula on the West Coast of Australia, approximately 850 km from Perth. In 1991 Shark Bay was assigned World Heritage status (Smith et al., 2006a). Monkey Mia is a small tourist resort consisting of a caravan park, camping ground, backpacker and hotel.

Survey

We conducted and analyzed a paper based visitor survey, which included questions about visitor expectations & experience, the socio-economic status of the subjects (including age, sex, educational status, group characteristics, occupation, etc.) and two choice sets drawn from a choice experiments. Choice set 1 focused on proximity to, and likelihood of, encountering dolphins (*Dolphin interaction as currently, 50% chance of observing dolphins, Occasional sightings offshore, No dolphins*) and the science center, indicating which education experience visitors valued. Choice set 2 focused on dolphin welfare (*Increased calf mortality*), expectations regarding feeding locations (e.g. visitor numbers and site) and alternative activities (hiking and kite surfing). This enabled us to evaluate the importance of welfare and dolphin interaction and other visit characteristics in order to understand the potential outcomes of changes in the feeding programme.

In order to understand destination choice, as well as the value respondents place on a number of activities including the dolphin interaction, respondents were asked to rank each activity on a scale ranging from, not important (1) to very important (4).

Choice Experiment Methodology

Choice experiments (CE) have recently become a tool for non-market evaluation in environmental policy (Bliemer & Rose, 2010; Hanley et al., 1998; Koundouri, 2009). This method has been developed to study consumer preferences for goods with multiple attributes (Louviere & Timmermans, 1990) and has been promoted as a useful methodology to understand tourist consumer behaviour (Crouch et al., 2001). CE have been used to evaluate factors associated with destination choice (Huybers, 2003b), international tourist demand (Huybers, 2003a; Huybers & Bennett, 2000), accommodation (Morley, 1995) and single destination demands (Morimoto, 2005). Moreover, CE have given direct insight into visitor preferences regarding sustainable park and reserve management such as trail management (Lawson & Manning, 2002; Newman et al., 2005), hunting (Boxall & Macnab, 2000; Bullock, Elston et al., 1998), rock climbing (Hanley et al., 2002), mountain biking (Morey et al., 2002) and resource management (Cahill et al., 2008). Here we used a CE to quantify preferences of visitors towards potential changes in their experience.

In CE, respondents are asked to choose between two (or more) alternatives and a *status quo* option, which is associated with no change in management. Choice sets are formed by changing attributes of the alternatives systematically according to the experimental design (Bateman et al., 2002; Bliemer & Rose, 2010). A Random Utility Model (RUM) is grounded on the theory of choice, integrating behaviour into economic evaluation. The RUM presumes that the respondent will choose the alternative with the

highest utility. The utility gained by visitor i from tourism experience j can be represented by a utility function,:

$$U_{ij} = \beta X_j + \varepsilon_{ij} \quad (E1)$$

Where X is a vector of attributes of the experience j , β a set of parameters, or weights, of how those attributes contribute to the experience and ε is a stochastic component that is unique to visitor i faced with experience j , but which is unobservable to the analyst. If given the choice between two or more alternative experiences, the RUM assumes that they will select the one that yields the highest utility.

If one assumes that the stochastic component is distributed independently and identically as an extreme value (Gumbel or Weibull) distribution then the probability of selecting the alternative j from a set of K alternatives available is given by the conditional logit model (Bateman et al., 2002).

$$P(Y = j) = \frac{\exp(\beta X_j)}{\sum_k^K \exp(\beta X_k)} \quad (E2)$$

If a status quo option is included, the CE will be consistent with utility maximisation and demand. Then, by comparing attributes in terms of their implicit prices, rankings between attributes and their levels can be determined (Bateman et al., 2002).

Choice Modelling: Survey Design and Data Collection

A constraint to CE designs is the number of attributes that can be included before cognitive limits are reached. The relevant attributes for this case were chosen based on discussions during a pilot study in the region, and the six attributes of interest were split into two separate choice experiments. The attributes are reported in Table 1. Costs were the daily entrance fee into Monkey Mia resort charged by the DEC in 2012. The distribution of attribute levels with each CE was designed using the Ngene 1.1

software (ChoiceMetrics, 2012), which allows attributing levels to be combined into choice sets to achieve efficiency in the design based on statistical design theory. The experimental design was based on a fractional factorial design, with 16 choice questions, each comprising two alternatives. We chose 30% decrease in reproductive success as a realistic scenario as Orams and Hill (1998) showed that the survival rates of calves born to provisioned females in Monkey Mia were significantly lower (36%) than for those that were not provisioned (67%) between 1985-1993 (but refer to Mann & Kemps, 2003; Mann et al., 2000).

Table 1. a) Choice experiment 1. Attributes and levels associated with each attribute focussing on proximity and likelihood of dolphin interaction. b) Choice experiment 2. Attributes and levels associated with each attribute focussing on feeding logistics, welfare concerns and alternative activities. The bold values represent the levels of the status quo alternative.

Survey administration

Initially, the questionnaire was distributed to a test-group of 59 visitors in March 2012. Comments and suggestions were taken into account when designing the main study. The main survey was distributed over a 10-day period in May 2012 between 8 and 11am, during dolphin feeding times, when the greatest numbers of visitors were at the beach. The necessary approvals from the DEC and the human ethics committee at the University of Western Australia were obtained.

Results

Overview

The visitor demographics were similar to those obtained by Pinkus and Smith (2012) who investigated visitor characteristic in Monkey Mia between 2008 and 2012, which may allow for some generalization in this study. An average of 152.6 people (11.7SE, n=10 days) attended each feeding interaction during the study period and of the 320 surveys distributed of which 264 were completed.

The majority of tourists surveyed were visiting Monkey Mia for the first time with about half of the respondents coming from overseas (50.2%, n=263). The majority of overseas respondents (82.39% n=119) and about half of the Australian respondents

(47.29%, n=129) did not intend to return to Monkey Mia. Most respondents who had visited Monkey Mia before (13.7%, n=262) were from Australia (91.7%, n=36).

The survey indicated that 71% of the all respondents would have visited Monkey Mia even if dolphin feeding not available (n=261). Of those respondents, about two third (n=186) would have spent the same amount of time in Shark Bay, while over one third (38.7% n=72) would have spent less time in Monkey Mia. Of the respondents who would have not taken the trip, 60% (n=29) would have visited a different destination, while the other 30.2% (n=12) would have not taken a trip. 12.1% of all respondents were unsure (n=32).

Of the respondents, only 19.0% reported to have been able to hand-feed the dolphins (n=264), while the majority (81.0%) observed the feeding interaction. The large majority (85.4%, n=205 excluding 9 uncompleted questions) of those respondents answered that not feeding had not affected their experience negatively. Recently DEC established regulations under which visitors gather on the boardwalk rather than on the beach before feeding in order to avoid begging behavior of females, resulting in them neglecting their calves. According to our survey, the majority of respondents (80.3%, n=244) *Understand this practice and finds it necessary* or *Accept the measure taken*.

Importance rankings

Prior to completing demographic information respondents were asked to score eight categories associated with their expectation of visiting Monkey Mia from 1 (not important) to 4 (very important). The categories associated with the dolphin interaction (*Seeing dolphins*, *Seeing dolphins in their natural environment* and *Closeness to dolphins*) were valued as most important. In contrast, overall *Feeding dolphins* and *Participation in a cruise* were of lesser importance to visitors (Figure 1).

Figure 1. Average importance score for different activities ($\pm 1SE$) provided in Monkey Mia, with (1) not important (2) minor importance (3) important and (4) very important ordered according to declining value. Categories were *Seeing dolphins in their natural environment* (n=241), *Seeing dolphins* (n=242), *Closeness to dolphins* (n=242), *Observing marine based wildlife* (n=224), *Opportunity to learn about nature* (224), *Observing land based wildlife* (n=221), *Feeding dolphins* (n=231) and *Participation in a cruise* (n=218).

Choice experiment 1

Although the importance scores give indication of rankings, these are essentially unconstrained: the respondent is not required to make any tradeoffs in making the scores. In contrast, the choice experiment set requires explicit tradeoffs to be made. The choice set data were analyzed using a conditional logit model, with the probability of choosing an alternative modeled as a function of its attributes (Hanley et al., 1998). The estimated coefficients represent (scaled) marginal utilities and imply the rate at which respondents were willing to trade-off one attribute for another.

The current level of interaction was used as the baseline, to which alternatives were compared. The p values indicate that all interaction levels are considered worse than the current level, that no science centre is viewed as reducing utility compared to the current position, but the positive improvements in the centre do not increase utility. Moreover, the results show a progressive reduction in utility as the form of interaction becomes more attenuated, as indicated by the large negative coefficients (Table 2).

Table 2. Results of Choice Experiment 1 parameter estimates (conditional fixed effects logistic regression). Significant values are highlighted bold.

Choice experiment 2

Reductions in welfare, implied by reproductive success, were viewed highly negatively and were associated with the lowest coefficient (Table 5). While viewing feeding from the beach in groups of over 300 visitors decreased utility, viewing the dolphin interaction in lower numbers (<300) did not result in a reduction in experience compared to the current situation. The use of a viewing platform did not reduce utility relative to current practice (Table 3). Presence of new activities within the area had divergent effects: kite/ wind surfing was viewed negatively, while the more low key activity of providing guided hiking tours is seen positively.

Table 3. Results of Choice Experiment 1 parameter estimates (conditional fixed effects logistic regression). Significant values are highlighted bold.

Part-worth's are defined as the ratio of the coefficients of the desired attribute by the coefficient of the cost variable (*Price*), and give relative monetary values and implies a ranking of the changes in attributes in a common metric. As reported, the monetary values (AU\$) can be interpreted as the amount that respondents would be prepared to pay to avoid the loss in utility associated with the change in experience and can be compared across choice experiments. The results suggest that *Not seeing dolphins* would have the largest impact on utility, but *Negative impacts on dolphin welfare* was also perceived highly negative, ranking second. The nature of the interaction had a significant negative impact on utility, with changes in other activities relatively unimportant (Table 4).

Table 4. Willingness to pay to avoid change in experience from choice experiments 1 and 2. Only significant values are reported.

Discussion

The current lack of understanding of tourist expectations regarding their wildlife experience makes sustainable resource management challenging (Fredline & Faulkner, 2001; Higginbottom, 2004; Lee & Moscardo, 2005; Moscardo et al. 2001; Tremblay et al., 2008). Our survey highlights the importance of proximity to animals and their welfare, which may be in conflict with one another, but could be managed if communicated clearly.

The results of the choice modeling highlighted the importance of probability and proximity of the dolphin interaction. Respondents were willing to pay an additional AU\$11 to avoid *50% chance of dolphins at feeding*, and AU\$19 if *Dolphins would only be sighted offshore*. *No dolphins* around the area was perceived as the worst situation relative to status quo, with an inferred price of AU\$40. Supporting this, visitors ranked categories associated with the dolphin interaction (*Seeing dolphins*, *Seeing dolphins in their natural environment*, *Being close to dolphins*) highest.

The importance of certainty in interaction with dolphins in the expectations associated with visiting Monkey Mia highlighted by the ranking exercise is in line with results reported elsewhere (e.g. Fredline & Faulkner, 2001; Hammitt et al, 1993; Higginbottom, 2004). Supporting that, our results indicated that the large majority of visitors (85%, n= 205) did not feel that their experience was negatively affected if they were not able to feed the dolphins themselves. This suggests that possibly feeding is seen as a means to the desired end: certainty of viewing, rather than a desired activity of itself.

Feeding interactions have a negative impact on habituated dolphins (Bejder et al. 2006a; Bejder et al., 2006b; Orams, 1995a; Orams & Hill, 1998), making it essential to understand the role animal welfare plays for tourists in order to find management approaches that can alleviate the tension between animal welfare and tourist expectation.

Dolphin welfare was highly important to respondents (here measured as *Change in reproductive success*, CE2), willing to pay AU\$33 in order to avoid a *Decrease in reproductive success*. This is almost equivalent to the amount they are prepared to pay to avoid there being no dolphins at all, suggesting visitors they would be prepared to forgo dolphins being present, if it that meant that there was no reduction in dolphin reproductive success.

Research has show that visitors are more likely to support management approaches and regulations within an environment if welfare impacts on species are clearly communicated to them (Ballantyne et al., 2009). Here, we found strong support for the management approach that restricted visitors from entering the beach before the feeding in order to ensure calf welfare. Although this impacted on their experience by limiting their time and proximity to the dolphins, visitors embraced this management approach. Thus, well communicated eco-tourism has the potential to increase understanding of ecosystems and to change the attitudes of visitors, resulting in environmentally responsible behavior, contributing to the long term viability of the ecosystems (Orams, 1995b).

Other attributes would have not met tourist expectations, with in little or no change in consumer utility compared to dolphin interaction and welfare attributes. For example, respondents did not support an *Enhancement of the science centre*, but *No science centre* had a negative impact on visitor utility. CE 2 showed that having high numbers of visitors (>300) in the dolphin interaction area decreased utility (Table 3). Larger visitor numbers limit individual distance, exposure and naturalness, all of which are important aspects in visitor experience (Reynolds & Braithwaite, 2001). Activities such as kite/ wind surfing were associated with decreased utility, whereas respondents would be willing to pay AU\$7 for the introduction of hiking activities.

Wildlife tourism constitutes a significant contribution to the management of protected areas with funds associated with tourism ranging from 5-50% (Buckley, 2009) and with icon species playing an important role contribution to these funds and visitation rates (Skibins, 2012). However, icon species are also often challenging to manage in a setting where they are exploited (Lindsey, Alexander, Mills, Romanach, & Woodroffe, 2007). Restricting the interaction with an icon species can result in decreased public support and funding, which can have local and regional impacts. Thus, the demands of tourists have to be understood and managed against the needs of the resource, to make wildlife tourism biologically and economically sustainable (Semeniuk, Haider, Beardmore, & Rothley, 2009; R. G. Wright, 1998).

Our results stress the dependence of the regional economy in Shark Bay on the dolphins, which has been shown elsewhere (Stoeckl et al., 2005). Monkey Mia attracts approximately 100 000 visitors annually, with the expenditure on the icon species accounting for almost 19% of regional income (Stoeckl et al., 2005). It is essential to define visitors needs and expectations regarding their experience, understand this interdependency between wildlife icon and economy. According to our study, only 43.5% of respondents claimed that they would spend the same amount of time in the region if the dolphin feeding was not available, which similar to the 46% reported by Stoeckl et al. (2005).

Here we show that the quality and certainty of the dolphin interaction, as well as welfare considerations, were of high importance to the visitors of Monkey Mia. By communicating the importance of regulations associated with welfare, the conflict between visitor demands and animal welfare could be alleviated. Thus, wildlife tourism can only be successful if the visitor demands are integrated into wildlife resource planning and management (Tremblay et al., 2008). Effective planning and management

350 can only occur if the motivations and needs of tourists are understood and integrated
351 (Tremblay et al., 2008).

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Tables & Figures

Table 1. a) Choice experiment 1. Attributes and levels associated with each attribute focussing on proximity and likelihood of dolphin interaction. b) Choice experiment 2. Attributes and levels associated with each attribute focussing on feeding logistics, welfare concerns and alternative activities. The bold values represent the levels of the status quo alternative

a) CE1	
Attribute	Level
Interaction	Continued as it is currently (daily feeding on beach) 50% chance of dolphins attending feeding Occasional dolphin sightings from far off shore No dolphins around the area
Science centre	Current science centre Enhanced science centre (modernised, interactive) Current science centre + greater number of talks No science centre
Cost	AU\$16 AU\$4 AU\$8 AU\$24
b) CE 2	
Attribute	Level
Feeding location	No change (feeding on beach, variable numbers of visitors) From viewing platform On the beach (over 300 visitors) On the beach (well under 300 visitors)
New activities	No change (no new activities provided) Kite/ wind surfing Guided walks/ talks about site
Welfare impacts	No change in reproductive success Decrease in reproductive success (30 % greater calf mortality)
Cost	AU\$16 AU\$4 AU\$8 AU\$24

519 Table 2. Results of Choice Experiment 1 parameter estimates (conditional fixed effects
520 logistic regression). Significant values are highlighted bold.

Attribute	Level	Coefficient	SE	z	P> z
Interaction	50/50 chance	-1.252	0.20	-6.17	>0.001
	Sightings Offshore	-2.120	0.29	-7.23	>0.001
	No dolphins	-4.303	0.49	-8.71	>0.001
Visitor centre	Enhanced	0.188	0.24	0.79	0.427
	Talks given	0.004	0.23	0.02	0.987
	No science centre	-0.828	0.20	-4.06	>0.001
Price		-0.111	0.02	-6.1	>0.001

521 Observations: 968
522 Pseudo R²: 0.2717
523 LogL: -244.33
524

525 Table 3. Results of Choice Experiment 1 parameter estimates (conditional fixed effects
 526 logistic regression). Significant values are highlighted bold.

Attribute	Level	Coefficient	SE	z	P> z
Feeding location	Ob (+300)	-0.875	0.23	-3.89	>0.001
	Ob (-300)	0.279	0.19	1.49	0.135
	Platform	-0.155	0.19	-0.8	0.421
New activities	Kite/ wind surfing	-0.603	0.18	-3.32	0.001
	Hiking	0.478	0.18	2.59	>0.01
Welfare	Decreased reprod. success	-1.331	0.23	-5.67	>0.001
Price		-0.038	0.01	-2.58	0.010

527 Observations: 944
 528 Pseudo R²: 0.1126
 529 LogL: -290.31
 530

531 Table 4. Willingness to pay to avoid change in experience from choice experiments 1
 532 and 2. Only significant values are reported.

Attribute	Level	\$/Visit	SE	z	P> z 	Rank
Interaction	50/50 chance	11.28	2.05	5.51	<0.001	6
	Sightings Offshore	19.10	2.66	7.17	<0.001	4
	No dolphins	38.78	4.88	7.95	<0.001	1
Visitor centre	No science centre	7.46	1.89	3.95	<0.001	7
Feeding location	Of Beach (+300)	23.18	10.82	2.14	0.032	3
	Kite/ wind surfing	15.98	6.71	2.38	0.017	5
	Hiking	-12.67	5.66	2.24	0.025	8
	Welfare	35.27	11.33	3.11	0.002	2

533

534 Figure 1. Average importance score for different activities (± 1 SE) provided in
535 Monkey Mia, with (1) not important (2) minor importance (3) important and (4)
536 very important ordered according to declining value. Categories were *Seeing*
537 *dolphins in their natural environment* (n=241), *Seeing dolphins* (n=242),
538 *Closeness to dolphins* (n=242), *Observing marine based wildlife* (n=224),
539 *Opportunity to learn about nature* (224), *Observing land based wildlife* (n=221),
540 *Feeding dolphins* (n=231) and *Participation in a cruise* (n=218).